June 19, 1962

Dr. Tetsuo Iino
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Dear Tetsuo:

Again just a hasty note to call your attention to an interesting paper by Pollock and Richmond (Nature 194: 446-449, May 5, 1962). They stress the general absence or scarcity of cyst(e)ine in extracellular proteins which they relate to the possibility that cystine would result in a more rigid and therefore less easily diffusible molecule. He makes only one reference to the amino acid analysis which is the paper by Kobayashi, Rinker and Koffler, Arch. Biochim. Biophys., 84, 342 (1959), so Pollock likewise must not be aware of any more extensive studies on amino acid composition of flagella. The other paper that I have to mention to you is one that just appeared in the May 1962 issue of Virology by David Sheppard from the Biology Department at Johns Hopkins University in Kozinski's laboratory on "Density Gradient Centrifugation of Bacteriophage P22". The results are somewhat confusing. For the most part transducing particles had the same or very nearly the same density distribution as infective particles. However, the transducing particles may be of two types, one category having a density indistinguishable from the infective particles, and another category which is much scarcer having denser particles whose transducing efficiency compared to infectivity is very much higher. The studies were not complete and one would certainly like to know whether the transductions from this rare category were genetically different (heterogenosis?, heritability of high density? HFT?).

I have written to Helen Makela asking her for the possibility of producing some hybrid strains of Salmonella X serratia that might be especially useful for our study of the DNA picnograms of Salmonella phases when you are here in September.

All best regards.

As ever,

Joshua Lederberg
Professor of Genetics

JL:jc